

CLAIMS

What is claimed is:

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1. A receiver, comprising:
a radio frequency (RF) front end;
a pulse detector, said pulse detector operatively coupled to said RF front end;
and
a data recovery unit operatively coupled to said pulse detector, said data recovery unit configured to receive spread spectrum RF signals having different modulation methods.
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2. The receiver of claim 1 wherein said data recovery unit is configured to receive signals modulated by on-off keying.
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3. The receiver of claim 2 wherein said data recovery unit is also configured to receive signals modulated by pulse amplitude modulation.
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4. The receiver of claim 1 wherein said data recovery unit is configured to receive signals modulated with pulse amplitude modulation.
5. A receiver, comprising:
a radio frequency (RF) front end;
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a pulse detector, said pulse detector operatively coupled to said RF front end;
and

a data recovery unit operatively coupled to said pulse detector, said data
recovery unit configured to receive spread spectrum RF signals having different pulse
5 repetition frequencies.

6. The receiver of claim 5 wherein said data recovery unit is configured to receive
signals having different modulation techniques.

10 7. The receiver of claim 6 wherein said data recovery unit is configured to receive
signals modulated by on-off keying.

8. The receiver of claim 7 wherein said data recovery unit is configured to receive
signals modulated by pulse amplitude modulation.

15 9. The receiver of claim 6 wherein said data recovery unit is configured to receive
signals modulated by pulse amplitude modulation.

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20 10. The receiver of claim 6 wherein said data recovery unit further comprises a
phase locked loop module, said phase locked loop module configured to detect
changes in the pulse sampling rate.

11. The receiver of claim 10 wherein said data recovery unit further comprises a divider module coupled to said phase locked loop module, said divider module configured to determine when to sample an incoming signal.

5 12. The receiver of claim 6 wherein said data recovery unit further comprises an analog digital converter operatively coupled to said pulse detector, said analog digital converter configured to generate digital output signals.

10 13. The receiver of claim 12 wherein said data recovery unit further comprises a decoder operatively coupled to said analog digital converter, said decoder configured to receive said plurality of digital output signals and convert said plurality of digital output signals to symbols having one or more bit values.

14. A network of transceiver node devices comprising:

15 a first slave transceiver having a receiver configured to receive spread spectrum signals;

a second slave transceiver configured to communicate with said first slave transceiver; and

a master transceiver in communication with said first slave transceiver and said second slave transceiver, said master transceiver configured to manage data transmissions and synchronization between the said first slave transceiver and said second slave transceiver.

15. The network of transceiver node devices as recited in claim 14 wherein said master transceiver further comprises a master receiver including a radio frequency (RF) front end, a pulse detector operatively coupled to said RF front end, and a data
5 recovery unit configured to receive spread spectrum RF signals having different modulation methods.

16. The master transceiver recited in claim 14 wherein said master receiver is configured to receive signals modulated by on-off keying.

17. The network of transceiver node devices as recited in claim 14 wherein said master transceiver further comprises a master receiver including a radio frequency (RF) front end, a pulse detector operatively coupled to said RF front end, and a data
10 recovery unit configured to receive spread spectrum RF signals having variable pulse repetition frequencies.

18. The master transceiver recited in claim 17 wherein said master receiver is configured to receive signals having different modulation methods.

19. The master transceiver recited in claim 18 wherein said master receiver is configured to receive signals modulated by on-off keying.

20. The network of transceiver node devices recited in claim 14, wherein said first slave transceiver is configured to communicate as said master transceiver.